Syllabus
Graduate Seminar in Algorithmic Composition (206b)
(DANM 217)
UC Santa Cruz, Winter, 2016
Polansky

Revision: 2/18/16

Wednesday, 4–7, DARC 340

Class website:
http://eamusic.dartmouth.edu/~larry/classes.html

Schedule (tentative, will be revised as class progresses)

1/5: Introduction to class, texts, assignments

• Some thoughts about “algorithmic” composition: What is it? What might it include?
  o What’s the difference between “algorithms” and “theory”, algorithms and “methods”?
  o Style simulation; compositional algorithms; emulations of preexisting bodies of knowledge (mathematics, sonifications, information networks, cognition).
  o Music that draws its “appeal” (that is, it “appeals” to, not in the sense of gratifying, but in drawing justification) from something else: nature, mathematics, musical style, visions, principles of perception, etc.
  o Programming or !programming?

• Some examples from my own work (Four Voice Canons, harmonic trajectory pieces, time distortion, work in progress)

Assignment for next week (1/12):

• 20-minute in-class presentation about an algorithmic work of your choice, not your own, and preferably, one you were not previously familiar with.

• Student led discussion of the readings: to be assigned

Assigned readings (all class readings from Tenney book on reserve in McKinley, class website, or JSTOR)

• Tenney, From Scratch, Writings in Music Theory (on reserve in main library),
- Chapters: 2 (Meta+Hodos), 6 (“Form in 20th Century Music”), 9 (“Hierarchical Temporal Gestalt…”), Appendix 1 (“Pre—Meta+Hodos”)
- Optional reading: “Introduction”

1/13: Student Presentations, Algorithmic Pieces
(Readings: General readings on computer-assisted work)
- Discussion of the readings: What is form, how might it be determined? Discussed?
- Parametric, perceptual, cognitive formal determinants.
- Gestalt principles.
- The use of parametric curves and statistical/morphological reductions.
- Basic principles of Tenney’s approach. Issues in need of further exploration?

Assignment for 1/27:
- Short composition: a “purely” algorithmic work (due 1/27)
- Student led discussion of the readings: (student will be assigned in previous class)

Assigned readings
- Ames, “Automated Composition in Retrospect,” Leonardo 20/2, 1987 (on class website and JSTOR)

1/20: Guest speaker, Larry Cuba (meeting at his house, pizza provided)
Assigned readings (for next week)
  - Tenney
    - Chapters: 10 (“…Contributions”), 11 (“…Aggregates”), 12 (“John Cage…”), 19 (“…Diapason”)
    - Optional: Chapters 13, 16, 17, 18
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“Item: Lou Harrison as a speculative theorist,” A Lou Harrison Reader, Soundings Press, 1987

1/27: Pitch and harmony

Listen to pieces

Graduate student-led talk/discussion on pitch and harmony

(Andrew Smith)

Assignment for two weeks from now, 2/17

• Second piece, and proposal for final piece of term (talked about in class)

Assigned Readings for next week

• Tenney, Chapters: 8, “The Chronological Development of Ruggles’...”, 15 (“About ‘Changes’...”)


• Ames (on JStor)


2/3: Statistics and Probability

LP talk: on time

Continuation of first assignment student pieces

Assigned Readings for next week (for Mike Winter; all on class website)

• Chaitin, “Conceptual Theory and Algorithmic Information”

• Johnson, “Found Mathematical Objects”
• Shannon, “A Mathematical Theory of Communication”
• Winter, “On Minimal Change Music Morphologies”
• Winter, “Structural Metrics: An Epistemology” (Preface, Introduction)

2/10: Mike Winter, guest talk
3 student pieces (piece #1)

2/17: Probability
LP lecture
3-4 student pieces (piece #2)
Assigned Readings (for morphology, next week)
• LP, “Morphological Metrics,” Journal of New Music Research, 1996 (on class website; feel free to read selectively in this long article)

2/24: Morphology
Student pieces (#2)
No LP lecture because of campus blackout previous week (need time for student presentations)

3/2: No class (LP at Other Minds)
Rehearsal time, fixed, for final projects. All meet in usual place.

3/9: Final projects, present in class
Talk about them. In-progress, run thrus, etc.

March 17, 7:30 – 10:00
Final (in house) concert